

Recent publications by IBM authors

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A

Concavity of Queuing Systems with NBU Service Times, R. Rajan (IBM Corporation, P.O. Box 704, Yorktown Heights, NY 10598) and R. Agrawal, *Advances in Applied Probability* **30**, No. 2, 551–567 (1998).

Measured and Predicted Air Temperatures at Basin to Regional Scales in the Southern Appalachian Mountains, P. V. Bolstad (University of Minnesota, 1530 North Cleveland Avenue, St. Paul, MN 55108) et al., *Agricultural and Forest Meteorology* **91**, No. 3–4, 161–176 (1998).

Simultaneous Dual Living Polymerizations: A Novel One-Step Approach to Block and Graft Copolymers, D. Mecerreyes (University of Liege, B-4000 Liege, Belgium) et al., *Angewandte Chemie* **37**, No. 9, 1274–1276 (1998).

Spin-Dependent Transport and Low-Field Magnetoresistance in Doped Manganites, J. Z. Sun (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) and A. Gupta, *Annual Review of Materials Science* **28**, 45–78 (1998).

Balancing Interpixel Cross-Talk and Detector Noise to Optimize Areal Density in Holographic Storage Systems, M. P. Bernal (IBM Corporation, 650 Harry Road, San Jose, CA 95120) et al., *Applied Optics* **37**, No. 23, 5377–5385 (1998).

Experimental Evaluation of User Capacity in Holographic Data Storage Systems, G. W. Burr (IBM Corporation, 650 Harry Road, San Jose, CA 95120) et al., *Applied Optics* **37**, No. 23, 5431–5443 (1998).

Paramagnetic and Ferromagnetic Resonance Imaging with a Tip-On Cantilever Magnetic Resonance Force Microscope, K. Wago (IBM Corporation, 650 Harry Road, San Jose, CA 95120) et al., *Applied Physics Letters* **72**, No. 21, 2757–2759 (1998).

Optical Depth Profiling of Band-Gap Engineered Interfaces in Amorphous Silicon Solar Cells at Monolayer Resolution, H. Fujiwara (Pennsylvania State University, University Park, PA 16802) et al., *Applied Physics Letters* **72**, No. 23, 2993–2995 (1998).

High-Sensitivity Spin-Valve Strain Sensor, H. J. Mamin (IBM Corporation, 650 Harry Road, San Jose, CA 95120) et al., *Applied Physics Letters* **72**, No. 24, 3220–3222 (1998).

Characterization of Substrate/Thin-Film Interfaces with X-ray Microdiffraction, I. C. Noyan (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *Applied Physics Letters* **72**, No. 25, 3338–3340 (1998).

Growing Carbon Nanotubes by Microwave Plasma-Enhanced Chemical Vapor Deposition, L. C. Qin (IBM Corporation, 5600 Cottle Road, San Jose, CA 95193) et al., *Applied Physics Letters* **72**, No. 26, 3437–3439 (1998).

Enhanced Thermal Stability of C49 TiSi₂ in the Presence of Aluminum, S. L. Zhang (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *Applied Physics Letters* **73**, No. 3, 312–314 (1998).

Imaging of Photogenerated Acid in a Chemically Amplified Photoresist, S. J. Bukofsky (IBM Corporation, Route 52, Hopewell Junction, NY 12533) et al., *Applied Physics Letters* **73**, No. 3, 408–410 (1998).

Mott Transition Field-Effect Transistor, D. M. Newns (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *Applied Physics Letters* **73**, No. 6, 780–782 (1998).

Ultrafast Generation of Blue Light by Efficient Second-Harmonic Generation in Periodically Poled Bulk and Wave Guide Potassium Titanyl Phosphate, Y. Wang (Bowling Green State University, Bowling Green, OH 43403) et al., *Applied Physics Letters* **73**, No. 7, 873–875 (1998).

X-ray Diffraction Analysis of SiGe/Si Heterostructures on Sapphire Substrates, P. M. Mooney (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *Applied Physics Letters* **73**, No. 7, 924–926 (1998).

Field-Dependent Microsusceptometry on Magnetic Crystallites with Integrated de SQUIDS, L. R. Narasimhan (University of California, Los Angeles, CA 90095) et al., *Applied Physics Letters* **73**, No. 7, 993–995 (1998).

Temperature and Bias Dependence of Magnetoresistance in Doped Manganite Thin-Film Trilayer Junctions, J. Z. Sun (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *Applied Physics Letters* **73**, No. 7, 1008–1010 (1998).

Ultrahigh Vacuum Scanning Tunneling Microscopy Nanofabrication and Hydrogen/Deuterium Desorption from Silicon Surfaces: Implications for Complementary Metal Oxide Semiconductor Technology, J. W. Lyding (University of Illinois, 405 North Mathews, Urbana, IL 61801) et al., *Applied Surface Science* **132**, 221–230 (1998).

Giant Shells and Stellar Arcs as Relics of γ -Ray Burst Explosions, Y. N. Efremov (Moscow MV Lomonosov State University, University Prospect 13, Moscow 119899, Russia) et al., *Astrophysical Journal* **501**, No. 2, L163–L165 (1998).

B

Combinatorial Pattern Discovery in Biological Sequences: The Teiresias Algorithm, I. Rigoutsos (IBM Corporation, P.O. Box 704, Yorktown Heights, NY 10598) and A. Floratos, *Bioinformatics* **14**, No. 1, 55–67 (1998).

C

Benchmarking Information Systems, G. L. Keese (IBM Corporation, Houston, TX 77056) et al., *Chemical Engineering* **105**, No. 6, 149 (1998).

Conformations of 1,2-Dimethoxypropane and 5-Methoxy-1,3-Dioxane: Are *Ab-Initio* Quantum Chemistry Predictions Accurate? G. D. Smith (University of Utah, Salt Lake City, UT 84112) et al., *Chemical Physics Letters* **289**, No. 5–6, 480–486 (1998).

Regularity Properties of H-Graphs, R. Finn (Stanford University, Stanford, CA 94305) and J. N. Lu, *Commentarii Mathematici Helvetici* **73**, No. 3, 379–399 (1998).

Opportunities for Watermarking Standards, F. Mintzer (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *Communications of the ACM* **41**, No. 7, 56+ (1998).

Viewing WISS As Database Applications, G. O. Arocena (IBM Toronto Laboratory, 1150 Eglinton Avenue East, North York, Ontario M3C 1H7, Canada) and A. O. Mendelzon, *Communications of the ACM* **41**, No. 7, 101–102 (1998).

Smarter Memory: Improving Bandwidth for Streamed References, S. A. McKee (University of Utah, Salt Lake City, UT 84112) et al., *Computer* **31**, No. 7, 54+ (1998).

Efficient Computation of Packet CRC from Partial CRCs with Application to the Cells-in-Frames Protocol, A. L. Roginsky (University of South Florida, 4202 East Fowler Avenue, Tampa, FL 33620) et al., *Computer Communications* **21**, No. 7, 654–661 (1998).

SAILOR: A Source-Assisted Partial Destination Slot Release Scheme for Slotted Networks, A. N. Tantawy (IBM Corporation, 30 Saw Mill River Road, Hawthorne, NY 10523) and C. C. Bisdikian, *Computer Communications* **21**, No. 8, 727–735 (1998).

Credit Scheduling: Adaptive Scheduling with Dynamic Service Quota, D. N. Serpanos (IBM Corporation, 30 Saw Mill River Road, Hawthorne, NY 10532) et al., *Computer Communications* **21**, No. 10, 889–897 (1998).

Get Ready for Reconfigurable Computing, N. Tredennick (Motorola Inc., Schaumburg, IL 60196), *Computer Design* **37**, No. 4, 55+ (1998).

Partial to Digital Parts, B. Valdes (IBM Corporation, 5600 Cottle Road, San Jose, CA 95193), *Computer Graphics World* **21**, No. 8, 8 (1998).

The Performance Impact of Exploiting Branch ILP with Tree Representation of ILP Code, S. M. Moon (Seoul National University, Seoul, South Korea) and K. Ebcioglu, *Computer Journal* **41**, No. 1, 26–44 (1998).

Decentralized Network Connection Preemption Algorithms, M. Peyravian (IBM Corporation, P.O. Box 12195, Research Triangle Park, NC 27709) and A. D. Kshemkalyani, *Computer Networks and ISDN Systems* **30**, No. 11, 1029–1043 (1998).

Reversible Data Mixing Procedure for Efficient Public Key Encryption, M. Matyas (IBM Corporation, P.O. Box 12195, Research Triangle Park, NC 27709) et al., *Computers & Security* **17**, No. 3, 265–272 (1998).

Falcon: Online Monitoring for Steering Parallel Programs, W. M. Gu (Georgia Institute of Technology, Atlanta, GA 30332) et al., *Concurrency* **10**, No. 9, 699–736 (1998).

D

Consecutive Interval Query and Dynamic Programming on Intervals, A. Aggarwal (IBM Corporation, P.O. Box 704, Yorktown Heights, NY 10598) and T. Tokuyama, *Discrete Applied Mathematics* **85**, No. 1, 1–24 (1998).

Specular and Diffuse Reflection Measurement Feasibility Study of ISO9241 Part 7 Method, N. Umezū (Toshiba Co. Ltd., 1-9-2 Hatara Cho, Fukaya, Saitama 366, Japan) et al., *Displays* **19**, No. 1, 17-25 (1998).

E

Measured Results on Bandgap Reference in SiGe BiCMOS, H. A. Ainspan (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) and C. S. Webster, *Electronics Letters* **34**, No. 15, 1441-1442 (1998).

Neural- and Delay-Based Heuristics for the Steiner Problem in Networks, A. Ghanwani (IBM Corporation, P.O. Box 12195, Research Triangle Park, NC 27709), *European Journal of Operational Research* **108**, No. 2, 241-265 (1998).

Size-Dependent Light Emission from Mass Selected Clusters, M. H. Schaffner (University of Lausanne, CH-1015 Lausanne, Switzerland) et al., *European Physics Journal D* **2**, No. 1, 79-82 (1998).

F

Efficient Message Passing on UNIX Shared-Memory Multiprocessors, M. Bernaschi (CNR, Via Policlin 137, I-00161 Rome, Italy), *Future Generations Computer Systems* **13**, No. 6, 443-449 (1998).

I

Technical Overview of IBM's Java Initiatives, K. D. Gottschalk (IBM Corporation, P.O. Box 12195, Research Triangle Park, NC 27709), *IBM Systems Journal* **37**, No. 3, 308-322 (1998).

IBM's Enterprise Server for Java, I. F. Brackenbury (IBM United Kingdom Ltd., Hursley Park, Winchester SO21 2JN, Hants, England) et al., *IBM Systems Journal* **37**, No. 3, 323-335 (1998).

The WebSphere Application Server Architecture and Programming Model, E. Bayeh (IBM Corporation, P.O. Box 12195, Research Triangle Park, NC 27709), *IBM Systems Journal* **37**, No. 3, 336-348 (1998).

The Evolution of Java Security, L. Koved (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *IBM Systems Journal* **37**, No. 3, 349-364 (1998).

Java and the IBM San Francisco Project, B. S. Rubin (IBM Corporation, 3605 Highway 52 North, Rochester, NM 55901) et al., *IBM Systems Journal* **37**, No. 3, 365-371 (1998).

IBM VisualAge for Java, L. A. Chamberland (IBM Corporation, 1150 Eglinton Avenue East, North York, Ontario M3C 1H7, Canada) et al., *IBM Systems Journal* **37**, No. 3, 386-408 (1998).

Optimizing Array Reference Checking in Java Programs, S. P. Midkiff (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *IBM Systems Journal* **37**, No. 3, 409-453 (1998).

T Spaces, P. Wyckoff (New York University, 251 Mercer Street, New York, NY 10012) et al., *IBM Systems Journal* **37**, No. 3, 454-474 (1998).

FORTRAN 90 in CSE: A Case Study, J. E. Moreira (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) and S. P. Midkiff, *IEEE Computational Science and Engineering Magazine* **5**, No. 2, 39-49 (1998).

Testing the 500-MHz IBM S/390 Microprocessor, T. G. Foote (IBM Corporation, 522 South Road, Poughkeepsie, NY 12601) et al., *IEEE Design & Test of Computers* **15**, No. 3, 83-89 (1998).

A Possible Mechanism for Reconciling Large Gate-Drain Overlap Capacitance with a Small Difference Between Polysilicon Gate Length and Effective Channel Length in an Advanced Technology PFET, R. Young (IBM Corporation, Route 52, Hopewell Junction, NY 12533) et al., *IEEE Electron Device Letters* **19**, No. 7, 234-236 (1998).

Collector-Base Junction Avalanche Multiplication Effects in Advanced UHV/CVD SiGe HBT's, G. F. Niu (Auburn University, Auburn, AL 36849) et al., *IEEE Electron Device Letters* **19**, No. 8, 288-290 (1998).

An Object Infrastructure for Internet Middleware: IBM on Component Broker, C. McFall (IBM Corporation, Armonk, NY 10504), *IEEE Internet Computing* **2**, No. 2, 46-51 (1998).

Cable Modems: Cable TV Delivers the Internet, J. R. Kinary (California Institute of Technology, Pasadena, CA 91125) and C. Metz, *IEEE Internet Computing* **2**, No. 3, 12-15 (1998).

Reliable Multicast: When Many Must Absolutely Positively Receive It, C. Metz (IBM Corporation, Armonk, NY 10504), *IEEE Internet Computing* **2**, No. 4, 9-13 (1998).

Using Relevance Feedback in Content-Based Image Metasearch, A. B. Benitez (Columbia University, New York, NY 10027) et al., *IEEE Internet Computing* **2**, No. 4, 59-69 (1998).

Modeling Full Length VBR Video Using Markov Renewal Modulated TES Models, B. Melamed (Rutgers State University, Piscataway, NJ 08854) and D. E. Pendarakis, *IEEE Journal on Selected Areas in Communications* **16**, No. 5, 600-611 (1998).

Large Chip vs. MCM for a High-Performance System, E. E. Davidson (IBM Corporation, 522 South Road, Poughkeepsie, NY 12601), *IEEE Micro* **18**, No. 4, 33-41 (1998).

Convergence Properties of Wave-Form Relaxation Circuit Stimulation Methods, G. D. Gristede (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *IEEE Transactions on Circuits and Systems I* **45**, No. 7, 726-738 (1998).

Performance Evaluation of Burst-Error Correcting Codes on a Gilbert-Elliott Channel, G. Sharma (Xerox Corporation, 800 Phillips Road, Webster, NY 14580) et al., *IEEE Transactions on Communications* **46**, No. 7, 846-849 (1998).

Interconnect and Circuit Modeling Techniques for Full-Chip Power-Supply Noise Analysis, H. H. Chen (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) and J. S. Neely, *IEEE Transactions on Components Packaging and Manufacturing Technology Part B* **21**, No. 3, 209–215 (1998).

S/390 Cost Performance Considerations for MCM Packaging Choices, G. A. Katopis (IBM Corporation, P.O. Box 950, Poughkeepsie, NY 12601) and W. D. Becker, *IEEE Transactions on Components Packaging and Manufacturing Technology Part B* **21**, No. 3, 286–297 (1998).

Don't Cares in Synthesis: Theoretical Pitfalls and Practical Solutions, D. Brand (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems* **17**, No. 4, 285–304 (1998).

Information Distance, C. H. Bennett (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *IEEE Transactions on Information Theory* **44**, No. 4, 1407–1423 (1998).

Determination of Error Values for Algebraic Geometry Codes and the Forney Formula, J. P. Hansen (Aarhus University, DK-8000 Aarhus C, Denmark) et al., *IEEE Transactions on Information Theory* **44**, No. 5, 1881–1886 (1998).

Efficient Data Mining for Path Traversal Patterns, M. S. Chen (National Taiwan University, Taipei 10764, Taiwan) et al., *IEEE Transactions on Knowledge and Data Engineering* **10**, No. 2, 209–221 (1998).

Temporal Association Algebra: A Mathematical Foundation for Processing Object-Oriented Temporal Databases, S. Y. W. Su (University of Florida, Gainesville, FL 32611) et al., *IEEE Transactions on Knowledge and Data Engineering* **10**, No. 3, 389–408 (1998).

Magnetoresistance Due to Domain Walls in Micron Scale Fe Wires with Stripe Domains, A. D. Kent (New York University, 4 Washington Place, New York, NY 10003) et al., *IEEE Transactions on Magnetics* **34**, No. 4, 900–902 (1998).

Structural, Electrical and Magnetic Properties of Co_{1-x}C Granular Films, H. Weinforth (Gerhard Mercator University, D-47048 Duisberg, Germany) et al., *IEEE Transactions on Magnetics* **34**, No. 4, 1132–1134 (1998).

Thermal Stability and Nanostructure of CoCrPt Longitudinal Recording Media, M. J. Yu (University of Nebraska, Lincoln, NE 68588) et al., *IEEE Transactions on Magnetics* **34**, No. 4, 1534–1536 (1998).

Numerical Simulations of the Effect of Record Field Pulse Length on Medium Coercivity at Finite Temperatures, H. N. Bertram (University of California, La Jolla, CA 92093) and Q. Z. Peng, *IEEE Transactions on Magnetics* **34**, No. 4, 1543–1545 (1998).

Chromium Segregation in CoCrTa/Cr and CoCrPt/Cr Thin Films for Longitudinal Recording Media, J. E. Wittig (Vanderbilt University, Nashville, TN 37235) et al., *IEEE Transactions on Magnetics* **34**, No. 4, 1564–1566 (1998).

Recording Performance of Thin-Film Media with Various Crystallographic Preferred Orientations on Glass Substrates, M. Mirzamaani (IBM Corporation, San Jose, CA 95195) et al., *IEEE Transactions on Magnetics* **34**, No. 4, 1588–1590 (1998).

Effect of Medium Thickness on the Signal-to-Noise Ratio of Perpendicular Media, Y. Ikeda (IBM Corporation, 650 Harry Road, San Jose, CA 95120) et al., *IEEE Transactions on Magnetics* **34**, No. 4, 1636–1638 (1998).

A New Laser Interferometer System for Investigation of the Dynamics at the Head/Disk Interface, M. Staudenmann (IBM Corporation, 5600 Cottle Road, San Jose, CA 95193) et al., *IEEE Transactions on Magnetics* **34**, No. 4, 1696–1698 (1998).

Potential Data Loss Due to Head/Disk Contacts During Dynamic Load/Unload, M. Suk (IBM Corporation, 5600 Cottle Road, San Jose, CA 95193) and D. Jen, *IEEE Transactions on Magnetics* **34**, No. 4, 1711–1713 (1998).

Nanomechanical Properties of CNX Overcoats and Cathodic Arc Carbon (CAC) Films, R. C. Hsiao (Quantum Chemical Corporation, 500 McCarthy Boulevard, Milpitas, CA 95035) et al., *IEEE Transactions on Magnetics* **34**, No. 4, 1720–1722 (1998).

Tribological Properties and Environmental Effects on Nano and Pico Sliders on Laser-Textured Media, B. Knigge (University of California, La Jolla, CA 92093) et al., *IEEE Transactions on Magnetics* **34**, No. 4, 1732–1734 (1998).

Investigation of Phosphazene Additive for Magnetic Recording Lubrication, C. M. Mate (IBM Corporation, 650 Harry Road, San Jose, CA 95120) et al., *IEEE Transactions on Magnetics* **34**, No. 4, 1744–1746 (1998).

Tribology of Solid Fluorocarbon Film on Magnetic Recording Media, T. E. Karis (IBM Corporation, 650 Harry Road, San Jose, CA 95120) et al., *IEEE Transactions on Magnetics* **34**, No. 4, 1747–1749 (1998).

Deposition of High-Durability Protective Layers with a Composite Structure of DLC and GLC by Facing Targets Sputtering, K. Noda (IBM Japan, Ltd., 1623-14 Shimotsuruma, Kanagawa 242, Japan) et al., *IEEE Transactions on Magnetics* **34**, No. 4, 1750–1752 (1998).

Calibrating ESCA and Ellipsometry Measurements of Perfluoropolyether Lubricant Thickness, M. F. Toney (IBM Corporation, 650 Harry Road, San Jose, CA 95120) et al., *IEEE Transactions on Magnetics* **34**, No. 4, 1774–1776 (1998).

Bump Formation and Growth by Multiple Laser Pulses on Ni-P Disk Substrate, T. C. Strand (IBM Corporation, 650 Harry Road, San Jose, CA 95120) et al., *IEEE Transactions on Magnetics* **34**, No. 4, 1786–1788 (1998).

A Study of Pulsed-Laser Bump Formation on Smooth Glass Substrates, J. Brannon (IBM Corporation, 5600 Cottle Road, San Jose, CA 95193) et al., *IEEE Transactions on Magnetics* **34**, No. 4, 1789–1791 (1998).

Issues on High-Speed Laser Zone Texturing of Magnetic Disk Substrates with Improved Quality, H. K. Park (IBM Corporation, 1798 NW 40th Street, Boca Raton, FL 33431) et al., *IEEE Transactions on Magnetics* **34**, No. 4, 1807-1809 (1998).

High-Speed Magnetic Recording, K. B. Klaassen (IBM Corporation, 650 Harry Road, San Jose, CA 95120) et al., *IEEE Transactions on Magnetics* **34**, No. 4, 1822-1827 (1998).

Detection and Capacity Limits in Magnetic Media Noise, R. Wood (IBM Corporation, 5600 Cottle Road, San Jose, CA 95193), *IEEE Transactions on Magnetics* **34**, No. 4, 1848-1850 (1998).

Bit Cell Aspect Ratio: An SNR and Detection Perspective, T. C. Arnoldussen (IBM Corporation, 5600 Cottle Road, San Jose, CA 95193), *IEEE Transactions on Magnetics* **34**, No. 4, 1851-1853 (1998).

Timing-Based Track-Following Servo for Linear Tape Systems, R. C. Barrett (IBM Corporation, 650 Harry Road, San Jose, CA 95120) et al., *IEEE Transactions on Magnetics* **34**, No. 4, 1872-1877 (1998).

Patterned Media Recording: Noise and Channel Equalization, S. K. Nair (IBM Corporation, 650 Harry Road, San Jose, CA 95120) and R. M. H. New, *IEEE Transactions on Magnetics* **34**, No. 4, 1916-1918 (1998).

Performance Comparison of a Class of (1,7) DFE Detectors, G. Mathew (Data Storage Institute, 10 Kent Ridge Crescent, Singapore 119260, Singapore) et al., *IEEE Transactions on Magnetics* **34**, No. 4, 1919-1921 (1998).

Byte Synchronization System and Method Using an Error-Tolerant Synchronization Pattern for the PR-IV Channel, T. Yasuda (IBM Japan, Ltd., Shiga, Japan) et al., *IEEE Transactions on Magnetics* **34**, No. 4, 1922-1924 (1998).

Sensor Saturation Effects on NLTS Measurements, J. S. Feng (IBM Corporation, 5600 Cottle Road, San Jose, CA 95193), *IEEE Transactions on Magnetics* **34**, No. 4, 1952-1954 (1998).

Thermal and Tangential Momentum Accommodation Coefficients for N-2 Colliding with Surfaces of Relevance to Disk Drive Air Bearings Derived from Molecular-Beam Scattering, C. T. Rettner (IBM Corporation, 650 Harry Road, San Jose, CA 95120), *IEEE Transactions on Magnetics* **34**, No. 4, 2387-2395 (1998).

TGLD: A 16-Channel Charge Readout Chip for the PHENIX Pad Chamber Detector Subsystem at RHIC, W. L. Bryan (Oak Ridge National Laboratory, Oak Ridge, TN 37831) et al., *IEEE Transactions on Nuclear Science* **45**, No. 3, 754-757 (1998).

Analysis of Task Assignment Policies in Scalable Distributed Web Server Systems, M. Colajanni (Università Roma Tor Vergata, Rome, Italy) et al., *IEEE Transactions on Parallel and Distributed Systems* **9**, No. 6, 585-600 (1998).

Approximations for the Renewal Function, A. Garg (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) and J. R. Kalagnanam, *IEEE Transactions on Reliability* **47**, No. 1, 66-72 (1998).

Tool Support for Planning the Restructuring of Data Abstractions in Large Systems, W. G. Griswold (University of California, La Jolla, CA 92093) et al., *IEEE Transactions on Software Engineering* **24**, No. 7, 534-558 (1998).

Nanometer Positioning of a Linear Motion Stage Under Static Loads, B. A. Awabdy (IBM Corporation, 5600 Cottle Road, San Jose, CA 95193) et al., *IEEE/ASME Transactions on Mechatronics* **3**, No. 2, 113-119 (1998).

On the Limiting Profile Arising From Orthonormalizing Shifts of Exponentially Decaying Functions, T. N. T. Goodman (University of Dundee, Dundee DD1 4HN, Scotland) et al., *IMA Journal of Numerical Analysis* **18**, No. 3, 331-354 (1998).

Traveling the Boundary of Minkowski Sums, S. P. Fekete (University of Cologne, Weyertal 80, D-50931 Cologne, Germany) and W. R. Pulleyblank, *Information Processing Letters* **66**, No. 4, 171-174 (1998).

Generational Scheduling for Dynamic Task Management in Heterogeneous Computing Systems, B. R. Carter (IBM Corporation, 11400 Burnet Road, Austin, TX 78758) et al., *Information Sciences* **106**, No. 3-4, 219-236 (1998).

Efficient Submesh Permutations in Wormhole-Routed Meshes, C. T. Ho (Yale University, New Haven, CT 06520) and M. Y. Kao, *Information Sciences* **107**, No. 1-4, 1-13 (1998).

Nanometer Thin-Film Ni-NiO-Ni Diodes for Detection and Mixing of 30-THz Radiation, C. Fumeaux (ETH Zurich, Institute of Quantum Electronics, CH-8093 Zurich, Switzerland) et al., *Infrared Physics & Technology* **39**, No. 3, 123-183 (1998).

STM Imaging of Be δ -Doped Layers in GaAs, P. M. Koenraad (Eindhoven University of Technology, P.O. Box 513, NL-5600 MB Eindhoven, Netherlands) et al., *Institute of Physics Conference Series* **156**, 245-248 (1998).

J

Nematic Liquid Crystal Phase Gratings for Reflective Spatial Light Modulators, M. H. Lu (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) and K. H. Yang, *Japanese Journal of Applied Physics Part 2* **37**, No. 5B, L587-L590 (1998).

Multidomain Homeotropic Liquid Crystal Display Based on Ridge and Fringe-Field Structure, S. C. A. Lien (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *Japanese Journal of Applied Physics Part 2* **37**, No. 5B, L597-L599 (1998).

Gamma Radiation Tolerance of UHV/CVD SiGe BiCMOS Technology Operated at Cryogenic Temperatures, J. M. Roldan (Auburn University, 200 Broun Hall, Auburn, AL 36849) et al., *Journal de Physique IV* **8**, No. NP3, 99–102 (1998).

TA and TAN Adhesion to High-Temperature Fluorinated Polyimides: Surface and Interface Chemistry, K. W. Lee (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *Journal of Adhesion Science and Technology* **12**, No. 7, 773–790 (1998).

Distributed Construction of Small K-Dominating Sets and Applications, S. Kutten (IBM Corporation, P.O. Box 704, Yorktown Heights, NY 10598) and D. Peleg, *Journal of Algorithms* **28**, No. 1, 40–66 (1998).

Effect of the Surface Upon Misfit Dislocation Velocities During the Growth and Annealing of SiGe/Si(001) Heterostructures, E. A. Stach (University of Virginia, Charlottesville, VA 22903) et al., *Journal of Applied Physics* **83**, No. 4, 1931–1937 (1998).

Enhanced Magneto-optical Kerr Effect in Oxidized Co Thin Films, B. Rellinghaus (IBM Corporation, 650 Harry Road, San Jose, CA 95120) et al., *Journal of Applied Physics* **83**, No. 11, 5621–5625 (1998).

In-Situ Fourier-Transform Infrared Spectroscopy and Stochastic Modeling of Surface Chemistry of Amorphous Silicon Growth, U. Wetterauer (University of Heidelberg, Inf 253, D-69120 Heidelberg, Germany) et al., *Journal of Applied Physics* **83**, No. 11, 6096–6105 (1998).

Magnetic Anisotropy and Microstructure in Molecular Beam Epitaxial FePt(110)/MgO(110), R. F. C. Farrow (IBM Corporation, 650 Harry Road, San Jose, CA 95120) et al., *Journal of Applied Physics* **84**, No. 2, 934–939 (1998).

Studies of Coupled Metallic Magnetic Thin-Film Trilayers, S. M. Rezende (Universidade Federal Pernambuco, BR-50670901 Recife, PE, Brazil) et al., *Journal of Applied Physics* **84**, No. 2, 958–972 (1998).

Optical Activation and Diffusivity of Ion-Implanted Zn Acceptors in GaN Under High-Pressure, High-Temperature Annealing, T. Suski (Polish Academy of Sciences, Unipress, Sokolowska 29, PL-01142 Warsaw, Poland) et al., *Journal of Applied Physics* **84**, No. 2, 1155–1157 (1998).

Two-Step Dopant Diffusion Study Performed in Two Dimensions by Scanning Capacitance Microscopy and Tsuprem IV, J. Kim (University of Utah, Salt Lake City, UT 84112) et al., *Journal of Applied Physics* **84**, No. 3, 1305–1309 (1998).

Electrically Active Point Defects in N-Type 4H-SiC, J. P. Doyle (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *Journal of Applied Physics* **84**, No. 3, 1354–1357 (1998).

Photovoltaic Measurement of the Built-In Potential in Organic Light-Emitting Diodes and Photodiodes, G. G. Malliaras (IBM Corporation, 650 Harry Road, San Jose, CA 95120) et al., *Journal of Applied Physics* **84**, No. 3, 1583–1587 (1998).

Vapor Liquid Equilibria for Solutions of Dendritic Polymers, C. Mio (University of California, Berkeley, CA 94720) et al., *Journal of Chemical and Engineering Data* **43**, No. 4, 541–550 (1998).

An Infrared Study of H₈Si₈O₁₂ Cluster Adsorption on Si(100) Surfaces, J. Eng (Lucent Technologies, Murray Hill, NJ 07974) et al., *Journal of Chemical Physics* **108**, No. 20, 8680–8688 (1998).

Constant Pressure and Temperature Molecular Dynamics Simulation of the Hydrated Diphytanolphosphatidylcholine Lipid Bilayer, T. Husslein (University of Pennsylvania, Philadelphia, PA 19104) et al., *Journal of Chemical Physics* **109**, No. 7, 2826–2832 (1998).

The Silicate Garden Reaction in Microgravity: A Fluid Interfacial Instability, D. E. H. Jones (University of Newcastle Upon Tyne, Newcastle Tyne NE1 7RU, Tyne and Wear, England) and U. Walter, *Journal of Colloid and Interface Science* **203**, No. 2, 286–293 (1998).

An Efficient Existentially Unforgeable Signature Scheme and Its Applications, C. Dwork (IBM Corporation, 650 Harry Road, San Jose, CA 95120) and M. Naor, *Journal of Cryptology* **11**, No. 3, 187–208 (1998).

A Computer Modeling Study on the Interaction of (CF₂CF₂O)-Polyperfluorinated Ethers with Lewis Acid Sites: Perfluorodiethyl Ether, R. J. Waltman (IBM Corporation, 5600 Cottle Road, San Jose, CA 95193), *Journal of Fluorine Chemistry* **90**, No. 1, 9–16 (1998).

Diffusion Coefficients for HCl and HBr in 30 Wt.% to 72 Wt.% Sulfuric Acid at Temperatures Between 220 and 300 K, J. K. Klassen (SRI International, 333 Ravenswood Avenue, Menlo Park, CA 94025) et al., *Journal of Geophysical Research—Atmospheres* **103**, No. ND13, 6197–6202 (1998).

Ray-Tracing of Optical Aids: Implications for Ocular Risk, M. B. Ritter (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) and J. M. Trewhella, *Journal of Laser Applications* **10**, No. 4, 186–190 (1998).

Parameterization of the Optical Functions of A-Si_{1-x}C_x-H: Applications to C-Depth Profiling and Surface-Temperature Monitoring in Solar-Cell Preparation, H. Fujiwara (Pennsylvania State University, University Park, PA 16802) et al., *Journal of Non-Crystalline Solids* **230**, 460–464 (1998).

FAIME: An Object-Oriented Methodology for Application Plug-and-Play, B. Chu (University of North Carolina, Charlotte, NC 28223) et al., *Journal of Object-Oriented Programming* **11**, No. 5, 20+ (1998).

Nonblocking Algorithms and Preemption-Safe Locking on Multiprogrammed Shared-Memory Multiprocessors, M. M. Michael (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) and M. L. Scott, *Journal of Parallel and Distributed Computing* **51**, No. 1, 1–26 (1998).

Universal Vortex State Hall Conductivity of $\text{YBa}_2\text{Cu}_3\text{O}_7$ Single Crystals with Differing Correlated Disorder, D. A. Beam (California Institute of Technology, Pasadena, CA 91125) et al., *Journal of Physics—Condensed Matter* **10**, No. 26, 5955–5964 (1998).

The Mechanism of Antiferromagnetism in Chromium, P. M. Marcus (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *Journal of Physics—Condensed Matter* **10**, No. 29, 6541–6552 (1998).

A Versatile and Efficient Synthesis of Alkoxyamine LFR Initiators Via Manganese-Based Asymmetric Epoxidation Catalysts, J. Dao (IBM Corporation, 650 Harry Road, San Jose, CA 95120) et al., *Journal of Polymer Science Part A* **36**, No. 12, 2161–2167 (1998).

Phase Structure of Systems with Infinite Numbers of Absorbing States, M. A. Munoz (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *Journal of Statistical Physics* **91**, No. 3–4, 541–569 (1998).

Reaction Synthesis of Titanium Silicides Via Self-Propagating Reaction Kinetics, B. K. Yen (University of Tokyo, Tokyo 113, Japan) et al., *Journal of the American Ceramic Society* **81**, No. 7, 1953–1956 (1998).

Ab-Initio Molecular Dynamics Study of the Reaction of Water with Formaldehyde in Sulfuric Acid Solution, E. J. Meijer (Vrije University of Amsterdam, NL-1081 HV Amsterdam, Netherlands) and M. Sprik, *Journal of the American Chemical Society* **120**, No. 25, 6345–6355 (1998).

Reactions Between Li Atoms and RCN ($\text{R} = \text{H}$ or CH_3): Semiempirical SCF-MO and Matrix Isolation ESR Studies, P. H. Kasai (IBM Corporation, 650 Harry Road, San Jose, CA 95120), *Journal of the American Chemical Society* **120**, No. 31, 7884–7892 (1998).

Boron in Polycrystalline $\text{Si}_x\text{Ge}_{1-x}$ Films, D. Mangelinck (National University of Singapore, Singapore 119260, Singapore) et al., *Journal of the Electrochemical Society* **145**, No. 7, 2530–2534 (1998).

Surface Finishing of High-Speed Print Bands I: A Prototype Tool for Electrochemical Microfinishing and Character Pounding of Print Bands, M. Datta (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *Journal of the Electrochemical Society* **145**, No. 9, 3047–3051 (1998).

Surface Finishing of High-Speed Print Bands II: An Electrochemical Process for Microfinishing of Hardened Fe–13Cr Stainless Steel, M. Datta (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) and L. T. Romankiw, *Journal of the Electrochemical Society* **145**, No. 9, 3052–3057 (1998).

(JA) Methodology Comparison for Head-Disk Interface Characterization Exploiting Read-Back Signals, H. Anzai (IBM Japan, Ltd., 1 Kirihaara Cho, Fujisawa, Kanagawa 252081, Japan) and T. Chikazawa, *Journal of the Japanese Society of Tribologists* **43**, No. 5, 376–381 (1998).

Simulations of Air Slider Bearings with Realistic Gas-Surface Scattering, T. E. Wenski (Lightwave Electronics, Mountain View, CA 95112) et al., *Journal of Tribology* **120**, No. 3, 639–641 (1998).

Directional Copper Deposition Using DC Magnetron Self-Sputtering, Z. J. Radzinski (SEH America Inc., 4111 NE 112 Avenue, Vancouver, WA 98668) et al., *Journal of Vacuum Science & Technology B* **16**, No. 3, 1102–1106 (1998).

Device Design and Circuit Modeling Issues in Ultrahigh-Vacuum Chemical-Vapor-Deposition SiGe Heterojunction Bipolar Transistors, J. D. Cressler (Auburn University, Auburn, AL 36849) et al., *Journal of Vacuum Science & Technology B* **16**, No. 3, 1516–1519 (1998).

Current Oscillations in Thin Metal-Oxide-Semiconductor Structures Observed by Ballistic-Electron-Emission Microscopy, H. J. Wen (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *Journal of Vacuum Science & Technology B* **16**, No. 4, 2296–2301 (1998).

M

Macromolecular Engineering Via “Living” Free Radical Polymerizations, E. E. Malmstrom (IBM Corporation, 650 Harry Road, San Jose, CA 95120) and C. J. Hawker, *Macromolecular Chemistry and Physics* **199**, No. 6, 923–935 (1998).

Hyperbranched Poly(ϵ -Caprolactone) Derived from Intrinsically Branched AB(2) Macromonomers, M. Trollsas (IBM Corporation, 650 Harry Road, San Jose, CA 95120) and J. L. Hedrick, *Macromolecules* **31**, No. 13, 4390–4395 (1998).

Synthesis of Poly(Olefin) Graft Copolymers by a Combination of Metallocene and Living Free Radical Polymerization Techniques, U. M. Stehling (Stanford University, Stanford, CA 94305) et al., *Macromolecules* **31**, No. 13, 4396–4398 (1998).

Segmental Dynamics of Solid-State Poly(Methylphenylsilane) by 1D and 2D Deuterium NMR, R. D. O'Connor (University of Missouri, Rolla, MO 65409) et al., *Macromolecules* **31**, No. 15, 4852–4861 (1998).

X-Peem Study on Surface Orientation of Stylized and Rubbed Polyimides, A. Cossyfavre (EMPA, Uberlandstrasse 129, CH-8600 Dubendorf, Switzerland) et al., *Macromolecules* **31**, No. 15, 4957–4962 (1998).

The Melt Viscosity of Dendritic Poly(Benzyl Ether) Macromolecules, P. J. Farrington (University of Queensland, Brisbane, Queensland 4072, Australia) et al., *Macromolecules* **31**, No. 15, 5043–5050 (1998).

The Semicrystalline Morphology of Poly(Etheretherketone) Blends with Poly(Ether-Imide), A. M. Jonas (Université Catholique Louvain, Place Croix Sud 1, B-1348 Louvain, Belgium) et al., *Macromolecules* **31**, No. 16, 5352-5362 (1998).

Multifiber Polycapillary Collimator for X-ray Powder Diffraction, Q. F. Xiao (X-ray Optical Systems Inc., Albany, NY 12205) et al., *Materials Science* **F278**, 236-241 (1998).

An Efficient Approximation Algorithm for the Survivable Network Design Problem, H. N. Gabow (University of Colorado, Campus Box 430, Boulder, CO 80309) et al., *Mathematical Programming* **82**, No. 1-2, 13-40 (1998).

Surfing for Virtual Parts: New Software on the Internet Makes Finding the Right Component for a Design Project Almost as Easy as Clicking and Dragging, B. Valdes (IBM Corporation, San Jose, CA 95114), *Mechanical Engineering* **120**, No. 7, 75-76 (1998).

Fabrication of Photoplastic High-Aspect Ratio Microparts and Micromolds Using SU-8 UV Resist, H. Lorenz (Swiss Federal Institute of Technology CH-1015 Lausanne, Switzerland) et al., *Microsystems Technologies* **4**, No. 3, 143-146 (1998).

Two Steps Micromoulding and Photopolymer High-Aspect Ratio Structuring for Applications in Piezoelectric Motor Components, L. Dellmann (University of Neuchâtel, Rue Jaquet Droz 1, CH-2007 Neuchâtel, Switzerland) et al., *Microsystems Technologies* **4**, No. 3, 147-150 (1998).

Direct SIMS Determination of the In Ga_{1-x}N Mole Fraction, A. P. Kovarsky (Mekhanobr Analyt Co., Saint Petersburg, Russia) et al., *MRS Internet Journal of Nitride Semiconductor Research* **3**, No. 10, 1-5 (1998).

Traffic Characterization Algorithms for VBR Video in Multimedia Networks, J. Liebeherr (University of Virginia, Charlottesville, VA 22903) and D. E. Wrege, *Multimedia Systems* **6**, No. 4, 271-283 (1998).

BRAHMA: Browsing and Retrieval Architecture for Hierarchical Multimedia Annotation, A. Dan (IBM Corporation, 30 Saw Mill River Road, Hawthorne, NY 10532) et al., *Multimedia Tools and Applications* **7**, No. 1-2, 83-101 (1998).

N

Doubling the Critical Temperature of La_{1-x}Sr_xCuO₄ Using Epitaxial Strain, J. P. Locquet (IBM Corporation, Säumerstrasse 4, 8803 Rüschlikon, Switzerland) et al., *Nature* **394**, No. 6692, 453-456 (1998).

Future Analytical Needs for Industry and Technology, J. E. E. Baglin (IBM Corporation, 650 Harry Road, San Jose, CA 95120) et al., *Nuclear Instruments & Methods in Physics Research Section B* **138**, 35-41 (1998).

RBS/ERD Simulation Problems: Stopping Powers, Nuclear Reactions and Detector Resolution, J. F. Ziegler (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598), *Nuclear Instruments & Methods in Physics Research Section B* **138**, 141-146 (1998).

RBS As a Tool for Topographic Modeling of Polycrystalline Thin-Film Interactions, J. E. E. Baglin (IBM Corporation, 650 Harry Road, San Jose, CA 95120) et al., *Nuclear Instruments & Methods in Physics Research Section B* **138**, 241-246 (1998).

O

Gray Scale Data Pages for Digital Holographic Data Storage, G. W. Burr (IBM Corporation, 650 Harry Road, San Jose, CA 95120) et al., *Optics Letters* **23**, No. 15, 1218-1220 (1998).

P

Interprocedural Analysis for Loop Scheduling and Data Allocation, T. N. Nguyen (Purdue University, West Lafayette, IN 47907) and Z. Y. Li, *Parallel Computing* **24**, No. 3-4, 477-504 (1998).

Pink Panther: A Complete Environment for Ground Truthing and Benchmarking Document Page Segmentation, B. A. Yanikoglu (IBM Corporation, 650 Harry Road, San Jose, CA 95120) and L. Vincent, *Pattern Recognition* **31**, No. 9, 1191-1204 (1998).

On Analytic Modeling of Multimedia Hatching Schemes, H. Shachnai (Technion, Israel Institute of Technology, IL-32000 Haifa, Israel) and P. S. Yu, *Performance Evaluation* **33**, No. 3, 201-213 (1998).

Density-Functional Theory and Molecular Dynamics: A New Perspective for Simulations of Biological Systems, W. Andreoni (IBM Corporation, Säumerstrasse 4, 8803 Rüschlikon, Switzerland), *Perspectives in Drug Discovery and Design* **9-11**, 161-167 (1998).

Density-Functional Theory Investigations of Enzyme-Substrate Interactions, P. Carloni (IBM Corporation, Säumerstrasse 4, 8803 Rüschlikon, Switzerland) and F. Alber, *Perspectives in Drug Discovery and Design* **9-11**, 169-179 (1998).

Comparative Molecular Moment Analysis, B. D. Silverman (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *Perspectives in Drug Discovery and Design* **12**, 183-196 (1998).

Thin-Film Trilayer Manganate Junctions, J. Z. Sun (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598), *Philosophical Transactions of the Royal Society of London Series A* **356**, No. 1742, 1693-1711 (1998).

Effect of Illumination on Transport Properties of the High Mobility 2D Hole Gas in Si-SiGe Heterostructures, V. A. Stadnik (University of New South Wales, Sydney, New South Wales 2052, Australia) et al., *Physica B* **246**, 386-390 (1998).

Hall Measurements of the Insulating Phases at $Nu = 1.5$ and $Nu \sim 0.5$ in P-Type $Si/Si_{1-x}Ce_x$ Heterostructures Using Pulsed Magnetic Fields, E. E. Mitchell (CSIRO, P.O. Box 218, Lindfield, New South Wales, Australia) et al., *Physica B* **246**, 391–394 (1998).

Hydrogen Segregation at the Al/Si(111) Interface, G. P. Felcher (Argonne National Laboratory, 9700 South Cass Avenue, Argonne, IL 60439) et al., *Physica B* **248**, 90–94 (1998).

Surface Activity of Modified Dendrimers at High Compression, G. F. Kirton (Australian National University, Canberra, ACT 0200, Australia) et al., *Physica B* **248**, 184–190 (1998).

Metal Insulator Transition in a Low-Mobility Two-Dimensional Electron System, D. Popovic (Florida State University, 1800 East Paul Dirac Drive, Tallahassee, FL 32306) et al., *Physica B* **251**, 701–704 (1998).

Kinetic Energy in Density Functional Theory, R. K. Nesbet (IBM Corporation, 650 Harry Road, San Jose, CA 95120), *Physical Review A* **58**, No. 1, R12–R15 (1998).

Elliptic Ion Traps and Trap Arrays for Quantum Computation, R. G. Devoe (IBM Corporation, 650 Harry Road, San Jose, CA 95120), *Physical Review A* **58**, No. 2, 910–914 (1998).

Electric-Field-Gradient Calculations Using the Projector Augmented Wave Method, H. M. Petrilli (IBM Corporation, Säumerstrasse 4, 8803 Rüschlikon, Switzerland) et al., *Physical Review B* **57**, No. 23, 4690–4697 (1998).

Magnetic Trilayers with Bilinear and Biquadratic Exchange Couplings: Criteria for the Measurement of $J(1)$ and $J(2)$, C. Chesman (Universidade Federal Rio Grande Norte, Caixa Postal 1641, BR-59072970 Natal, RN, Brazil) et al., *Physical Review B* **58**, No. 1, 101–104 (1998).

Ab-Initio Calculation of Binding and Diffusion of a Ga Adatom on the $GaAs(001)-C(4 \times 4)$ Surface, J. G. Lepage (United States Air Force, Wright Patterson Air Force Base, OH 45433) et al., *Physical Review B* **58**, No. 3, 1499–1505 (1998).

Carbon Nitride Deposited Using Energetic Species: A Review on XPS Studies, C. Ronning (North Carolina State University, Box 7919, Raleigh, NC 27695) et al., *Physical Review B* **58**, No. 4, 2207–2215 (1998).

Volume Dependence of the Magnetic Phases of Ordered $FeCr$, S. L. Qiu (Florida Atlantic University, Boca Raton, FL 33431) et al., *Physical Review B* **58**, No. 5, 2651–2653 (1998).

Negative Domain Wall Contribution to the Resistivity of Microfabricated Fe Wires, U. Ruediger (New York University, 4 Washington Place, New York, NY 10003) et al., *Physical Review Letters* **80**, No. 25, 5639–5642 (1998).

Thermal Adatoms on $Si(001)$, R. M. Tromp (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) and M. Mankos, *Physical Review Letters* **81**, No. 5, 1050–1053 (1998).

Direct Determination of the Exciton Binding Energy of Conjugated Polymers Using a Scanning Tunneling Microscope, S. F. Alvarado (IBM Corporation, Säumerstrasse 4, 8803 Rüschlikon, Switzerland) et al., *Physical Review Letters* **81**, No. 5, 1082–1085 (1998).

On Consistency Conditions for Rotating Turbulent Flows, C. G. Speziale (Boston University, Boston, MA 02215) et al., *Physics of Fluids* **10**, No. 8, 2108–2110 (1998).

Prenatal Diagnosis of Machado-Joseph Disease by Direct Mutation Analysis, J. Sequeiros (Universidade Oporto, Lg Abel Salazar 2, P-4050 Oporto, Portugal) et al., *Prenatal Diagnosis* **18**, No. 6, 611–617 (1998).

The Concept of State Within One-of-a-Kind Real-Time Production Control Systems, R. P. Laursen (IBM Corporation, Sortemosevej 21, DK-3450 Allerød, Denmark) et al., *Production Planning & Control* **9**, No. 6, 542–552 (1998).

Gamma-Frequency Oscillations: A Neuronal Population Phenomenon, Regulated by Synaptic and Intrinsic Cellular Processes, and Inducing Synaptic Plasticity, R. D. Traub (University of Birmingham, Vincent Drive, Birmingham B15 2TT, West Midlands, England) et al., *Progress in Neurobiology* **55**, No. 6, 563–575 (1998).

Q

At the Crossroads of Computing and Quality, J. W. Cortada (IBM Consulting Group, Madison, WI), *Quality Progress* **31**, No. 7, 53–57 (1998).

S

Room Temperature: Operating Spin-Valve Transistors Formed by Vacuum Bonding, D. J. Monsma (IBM Corporation, 650 Harry Road, San Jose, CA 95120) et al., *Science* **281**, No. 5375, 407–409 (1998).

Rotation of a Single Molecule Within a Supramolecular Bearing, J. K. Gimzewski (IBM Corporation, Säumerstrasse 4, 8803 Rüschlikon, Switzerland) et al., *Science* **281**, No. 5376, 531–533 (1998).

The Magnetic Stability of Spin-Dependent Tunneling Devices, S. Gider (IBM Corporation, 5600 Cottle Road, San Jose, CA 95193) et al., *Science* **281**, No. 5378, 797–799 (1998).

Experimental Studies on Deep Submicron CMOS Scaling, K. Chen (IBM Corporation, Route 52, Hopewell Junction, NY 12533) et al., *Semiconductor Science and Technology* **13**, No. 7, 816–820 (1998).

The Computational Structure of Monotone Monadic SNP and Constraint Satisfaction: A Study Through Datalog and Group Theory, T. Feder (IBM Corporation, 650 Harry Road, San Jose, CA 95120) and M. Y. Vardi, *SIAM Journal on Computing* **28**, No. 1, 57–104 (1999).

On Syntactic Versus Computational Views of Approximability, S. Khanna (AT&T Bell Laboratories, 600 Mountain Avenue, Murray Hill, NJ 07974) et al., *SIAM Journal on Computing* **28**, No. 1, 164–191 (1999).

Smart Smart Bounds for Weighted Response-Time Scheduling, U. Schwiegelshohn (University of Dortmund, Dortmund, Germany) et al., *SIAM Journal on Computing* **28**, No. 1, 237–253 (1999).

Competitive Algorithms for Layered Graph Transversal, A. Fiat (Tel Aviv University, IL-69978 Tel Aviv, Israel) et al., *SIAM Journal on Computing* **28**, No. 2, 448–463 (1999).

Reconstructing Algebraic Functions from Mixed Data, S. Ar (Princeton University, Princeton, NJ 08544) et al., *SIAM Journal on Computing* **28**, No. 2, 488–511 (1999).

Optimal Broadcast with Partial Knowledge, B. Awerbuch (Johns Hopkins University, Baltimore, MD 21218) et al., *SIAM Journal on Computing* **28**, No. 2, 512–525 (1999).

Primal–Dual RNC Approximation Algorithms for Set Cover and Covering Integer Programs, S. Rajagopalan (IBM Corporation, 650 Harry Road, San Jose, CA 95120) and V. V. Vazirani, *SIAM Journal on Computing* **28**, No. 2, 526–541 (1999).

Optimal Construction of Edge-Disjoint Paths in Random Graphs, A. Z. Broder (Digital Equipment Corporation, 130 Lytton Avenue, Palo Alto, CA 94301) et al., *SIAM Journal on Computing* **28**, No. 2, 542–574 (1999).

Reliable Computation of the Condition Number of a Tridiagonal Matrix in $O(n)$ Time, I. S. Dhillon (IBM Corporation, 650 Harry Road, San Jose, CA 95120), *SIAM Journal on Matrix Analysis and Applications* **19**, No. 3, 776–796 (1998).

An Iterative Scheme for Dense, Complex-Symmetrical, Linear Systems in Acoustics Boundary-Element Computations, R. Natarajan (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598), *SIAM Journal on Scientific Computing* **19**, No. 5, 1450–1470 (1998).

Atomic Decomposition by Basis Pursuit, S. S. B. Chen (IBM Corporation, P.O. Box 218, Yorktown Heights, NY 10598) et al., *SIAM Journal on Scientific Computing* **20**, No. 1, 33–61 (1999).

What Characterizes a (Software) Component? M. Broy (Technical University of Munich, D-8000 Munich, Germany) et al., *Software—Concepts and Tools* **19**, No. 1, 49–56 (1998).

The Mungi Single-Address-Space Operating System, G. Heiser (University of New South Wales, Sydney, New South Wales 2052, Australia) et al., *Software—Practice & Experience* **28**, No. 9, 901–928 (1998).

IBM Advanced Lithography Facility: The First Five Years, L. G. Lesoine (IBM Corporation, Route 52, Hopewell Junction, NY 12533) and J. A. Leavey, *Solid State Technology* **41**, No. 7, 101+ (1998).

The Absorption Structure of Glycine Adsorbed on Cu(110): Comparison with Formate and Acetate/Cu(110), J. Hasselstrom (University of Uppsala, Box 530, S-75121 Uppsala, Sweden) et al., *Surface Science* **407**, No. 1–3, 221–236 (1998).

Surface Segregation in an Al-4.2 at-%-Ag Alloy, H. K. Lee (Alcoa Technical Center, 100 Technical Drive, New Kensington, PA 15069) et al., *Surface Science* **408**, No. 1–3, 288–299 (1998).

T

A Steady-State Analysis of Diffracting Trees, N. Shavit (Massachusetts Institute of Technology, 545 Technology Square, Cambridge, MA 02139) et al., *Theory of Computing Systems* **31**, No. 4, 403–423 (1998).

Annealing Effects of Anodized Al-Based Alloy for Thin-Film Transistors, T. Arai (IBM Japan, Ltd., 1623-14 Shimotsuruma, Yamato, Kanagawa 242, Japan) and H. Iiyori, *Thin Solid Films* **318**, No. 1–2, 257–261 (1998).

Application of Focused Ion Beam Milling to Cross-Sectional TEM Specimen Preparation of Industrial Materials Including Heterointerfaces, K. Kuroda (Nagoya University, Nagoya, Aichi 4648603, Japan) et al., *Thin Solid Films* **319**, No. 1–2, 92–96 (1998).

EELS Analysis of Hydrogenated Diamond-Like Carbon Films, L. Ponsonnet (École Central Lyon, 36 Avenue Guy de Collongue, B.P. 163, F-69131 Écully, France) et al., *Thin Solid Films* **319**, No. 1–2, 97–100 (1998).

Transmission Electron Microscopy of Thin-Film Transistors on Glass Substrates, K. Tsujimoto (IBM Japan, Ltd., 1623-14 Shimotsuruma, Yamato, Kanagawa 242, Japan) et al., *Thin Solid Films* **319**, No. 1–2, 106–109 (1998).

Temperature-Dependence of the Al-Fill Processes for Submicron Via Structures, S. J. Weber (Siemens Company, Hopewell Junction, NY) et al., *Thin Solid Films* **320**, No. 1, 63–66 (1998).

U

Towards Quantitative Electron Holography of Magnetic Thin Films Using *In-Situ* Magnetization Reversal, R. E. Duninborkowski (Arizona State University, Tempe, AZ 85287) et al., *Ultramicroscopy* **74**, No. 1–2, 61–73 (1998).

V

A Lattice Boltzmann Scheme for Semiconductor Dynamics, S. Succi (IBM Corporation, Oceano Pacifico 171, I-00144 Rome, Italy) and P. Vergari, *VLSI Design* **6**, No. 1–4, 137–140 (1998).

Monte Carlo and Hydrodynamic Simulation of a One-Dimensional $N(<)-N-N(<)$ Silicon Diode, O. Muscato (Università Catania, Viale Andrea Doria, I-95125 Catania, Italy) et al., *VLSI Design* **6**, No. 1–4, 247–250 (1998).